

Taiwan Semiconductor

# **Dual Common Cathode Schottky Rectifier**

#### **FEATURES**

- Low power loss, high efficiency
- Guardring for overvoltage protection
- High surge current capability
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

### **MECHANICAL DATA**

Case: ITO-220AB

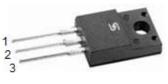
Molding compound, UL flammability classification rating 94V-0 Base P/N with suffix "G" on packing code - halogen-free

Terminal: Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 1A whisker test

Polarity: As marked

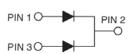
Mounting torque: 5 in-lbs maximum

Weight: 1.7 g (approximately)





ITO-220AB





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $T_A$ =25 $^{\circ}C$ unless otherwise noted)									
		MBRF	MBRF	MBRF	MBRF	MBRF	MBRF	MBRF	
PARAMETER	SYMBOL	835	845	850	860	890	8100	8150	UNIT
		СТ	СТ	СТ	СТ	СТ	СТ	СТ	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	35	45	50	60	90	100	150	V
Maximum RMS voltage	V <sub>RMS</sub>	24	31	35	42	63	70	105	V
Maximum DC blocking voltage	V <sub>DC</sub>	35	45	50	60	90	100	150	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	8							А
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>		150				А		
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 4 A	V <sub>F</sub>	0.	55	0.	.70 0.85 0.95		0.95	V	
Maximum reverse current @ rated VR $T_J$ =25 $^\circ$ C		0.1							
T <b>」=125</b> ℃	I <sub>R</sub>	1	5	1	0	5		mA	
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000				V/µs			
Typical thermal resistance	R <sub>θJC</sub>	6				<sup>o</sup> C/W			
Operating junction temperature range	TJ	- 55 to +150			°C				
Storage temperature range	T <sub>STG</sub>	- 55 to +150			°C				
Note 1: Pulse test with PW=300µs, 1% duty cycle	•	•							•

Note 1: Pulse test with PW=300µs, 1% duty cycle



## MBRF835CT thru MBRF8150CT

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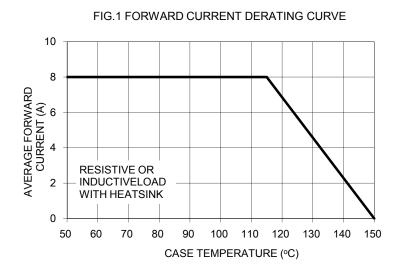
ORDERING INFORMATION						
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING		
MBRF8xxCT (Note 1)	CO	Suffix "G"	ITO-220AB	50 / Tube		

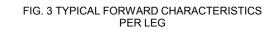
Note 1: "xx" defines voltage from 35V (MBRF835CT) to 150V (MBRF8150CT)

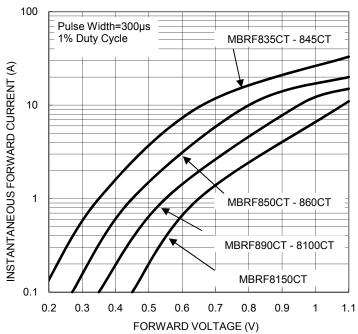
EXAMPLE							
PREFERRED P/N PART NO.		PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION			
MBRF860CT C0	MBRF860CT	CO					
MBRF860CT C0G	MBRF860CT	C0	G	Green compound			

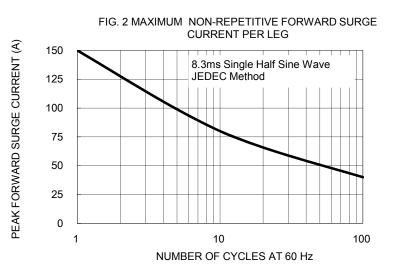
## **RATINGS AND CHARACTERISTICS CURVES**

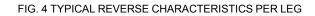
(TA=25°C unless otherwise noted)

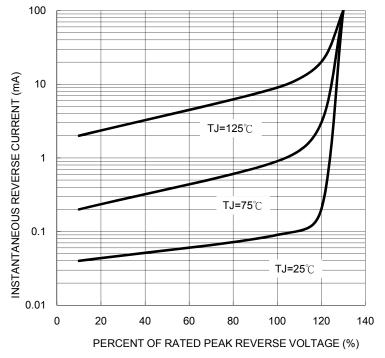








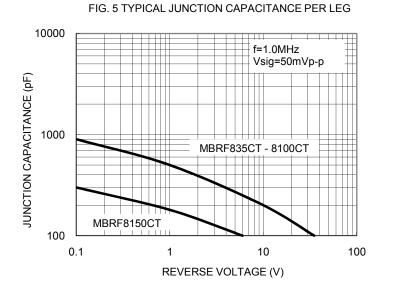


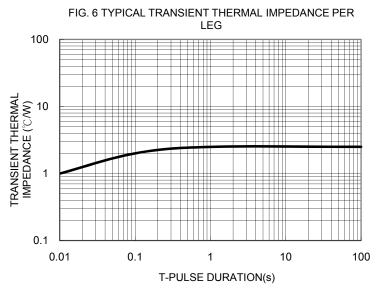




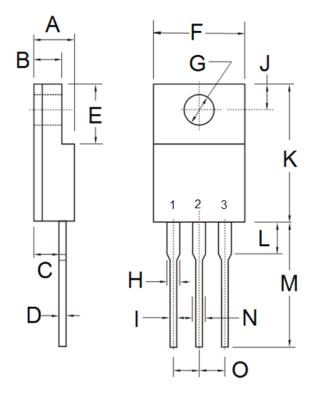
## MBRF835CT thru MBRF8150CT

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## PACKAGE OUTLINE DIMENSIONS



P/N

G

F

DIM.	Unit	(mm)	Unit (inch)			
	Min	Max	Min	Max		
Α	4.30	4.70	0.169	0.185		
В	2.50	3.16	0.098	0.124		
С	2.30	2.96	0.091	0.117		
D	0.46	0.76	0.018	0.030		
E	6.30	6.90	0.248	0.272		
F	9.60	10.30	0.378	0.406		
G	3.00	3.40	0.118	0.134		
Н	0.95	1.45	0.037	0.057		
I	0.50	0.90	0.020	0.035		
J	2.40	3.20	0.094	0.126		
К	14.80	15.50	0.583	0.610		
L	-	4.10	-	0.161		
М	12.60	13.80	0.496	0.543		
Ν	-	1.80	-	0.071		
0	2.41	2.67	0.095	0.105		

#### MARKING DIAGRAM



- = Specific Device Code
- = Green Compound
- YWW = Date Code
  - = Factory Code



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